Claims

1. A mixing device, in particular for the use as continuously working reactor, composed of at least two rotating shafts, wherein at least two opposing rows of blades are mounted on each shaft and each row of blades consists of at least two individual blades and that the blades are fixed to the shaft at an incidence angle α with respect to the longitudinal axis of the shaft, characterized in that the blades are curved in themselves, such that the blades form the angle of incidence α at the fixing point on the shaft and the angle of incidence β on the outer diameter D_A.

2. A mixing device according to claim 1, characterized in that the angle of incidence β on the outer diameter D_A is maximum as large as the angle of incidence α on the diameter D_W at the shaft.

3. A mixing device according to claim 2, characterized in that the angle of incidence α continuously decreases with increasing diameter, starting from diameter D_W at the shaft, and becomes as large as the smaller angle β on the outer diameter D_A.

4. A mixing device according to claim 3, characterized in that with an outer diameter of the blades D_A, which is double as long as the shaft diameter D_W at the fixing point of the blades, the angle of incidence β on the outer diameter D_A is about half as large as the angle of incidence α on the diameter D_W at the shaft.

5. A method for continuously mixing and reacting liquid and solid starting materials with a solid granular heat transfer medium, such as for example coke, or another suitable solid matter in a mixing device according to claim 1 through 4, characterized in that the axial speed of the media on the diameter D_W at the shaft is as high as the one on the outer diameter D_A.